

Applicant: Stephen N. Gaiski  
Serial No.: 10/043,922

REMARKS

In Response to the Office Action of May 13, 2003, Claims 1 to 31 remain in the case for consideration.

Claims 1-9 and 12 were rejected under 35 U.S.C. 102(b) as being anticipated by Gaiski (6,067,509). Independent claim 1, defines the present invention as a method for monitoring variations in range in the film build thickness of workpieces. Range is calculated as the difference between the greatest thickness measurement and the least thickness measurement of a subgroup. Data from at least two of the subgroups having the smallest calculated ranges are then selected.

The process as now defined, clearly is not anticipated by Gaiski. Gaiski is concerned with tracking the average thickness and range of the film. There is no suggestion in Gaiski of analyzing the optimal range impact on the C<sub>pk</sub> process capability index as it pertains to film build thickness.

In addition, Gaiski uses the average of a number of thickness readings to chart an average thickness value. He does not suggest selecting data from at least two of the subgroups having the smallest of the calculated ranges. Clearly, the present invention represents an improvement over Gaiski.

The claimed invention permits the coating engineer to note the impact that continuing a temporary optimum trend, will have on the process in terms of savings, material usage and costs.

For this reason it is believed that independent claim 1 and dependent claims 2-9 and 12 are in condition for Allowance.

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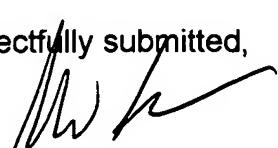
Claim 10 was rejected under 35 U.S.C. 103(a) as being unpatentable over Gaiski in view of the Rodger reference. Properly combining Gaiski and Rodger would not result in the invention of claim 1 and the independent claims because neither of these references suggest the specific calculation steps as defined in claim 1 and the dependent claims.

Claims 11 and 13 were objected to as being dependent upon a rejected base claim. Claims 11 and 13 have been rewritten as new claims 14 and 15 respectively. Claims 14 and 15 are now believed to be Allowable.

New claims 16 to 31 define methods and apparatus for determining relationships between the first and second film processes in which a parameter of the first film process has been changed, and the difference in the  $C_{pk}$  values of the two processes is used to optimize the process.

Certain of these claims define a means for generating a variety of important costs and changes in film build material usage using  $C_{pk}$  values. These claims expand on the invention defined in claim 11. Claims 16-31 are also believed to be in condition for Allowance, because the cited art does not teach of using Cpk values for generating costs and material usage when a parameter of the process has been changed.

Respectfully submitted,



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CERTIFICATE UNDER 37 CFR 1.8 (a)

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